

AMENDMENTS TO THE SPECIFICATION:

Please amend the specification beginning on page 22, line 14 as follows:

Organic molecular species Molecules 24 are chosen with functional head groups that bind to the particular solid substrate surface 26 of a substrate 34. Such molecules include compounds, such as, silanes, phosphonic acids, carboxylic acids, and hydroxamic acids, which can bind to a metal oxide surface, and thiols, amines, and phosphines, which can bind to metal and semiconductor surfaces.

Referring to Fig 1B, the elastomeric stamp 20 is placed in a predetermined orientation, adjacent to the substrate surface 26 such that only the stamping surface 28 contacts the substrate surface 26. The elastomeric stamp 20 is held in contact with the substrate surface 26 allowing the organic molecular species 24 to transfer to the substrate surface 26.

Fig. 1C shows ~~monolayer~~ organic molecular species 24 transferred to the solid substrate surface 26 after the elastomeric stamp 20 is removed.

Organic molecular species ~~A self-assembled molecular monolayer~~ 24 is transferred to the solid substrate surface 26 only in the regions 28 where the elastomeric stamp 20 is brought into contact with the solid substrate surface 26. Regions 29 of the substrate surface 26 not contacted by the elastomeric stamp 20 remain free of organic molecular species 24. Thus, the topography of the elastomeric stamp 20 defines the pattern of the organic molecular species ~~self-assembled molecular monolayer~~ 24 on the solid substrate surface 26.

Choice of the tail group of the ~~stamped~~ organic molecular species 24 modifies the chemical nature of the substrate surface 26 at region 28. Thus, subsequent solution deposition of the thin film will be determined by the chemical nature of the tail group and surface characteristics of the substrate at region 29.

Referring to Fig. 2A, dish 30 filled with a solution of the desired surface derivatizing molecular species 32 can be seen. The solid substrate ~~[[34]]~~ is immersed in the solution of molecules 32 for a time period long enough to allow the organic molecular species ~~of the molecules~~ in solution 32 to come into contact with, bind to and pack on the substrate at region 29 ~~surface 34~~, forming a self-assembled molecular monolayer 40.